

2000). All important field marks, including the characteristic tail pattern, were noted.

ORANGE-BREASTED TROGON *Harpactes oreskios*

Usual upper elevational limit: 1,220 m (Robson 2000). A female was seen towards the upper end of the open road from 'The Gap' to Bukit Fraser at 1,450 m.

RED-BILLED MALKOHA *Phaenicophaeus javanicus*

Usual upper elevational limit: 1,200 m (Robson 2000). One was watched for extended periods of time along the road from 'The Gap' to Bukit Fraser at 1,450 m.

RED-EYED BULBUL *Pycnonotus brunneus*

Usual upper elevational limit: 1,000 m (Robson 2000). Three adults were seen in degraded roadside vegetation towards the lower end of the closed road from 'The Gap' to Bukit Fraser at 1,350 m. The birds were seen well for more than a minute and all the important field marks, including the eye-colour, which rules out confusion with similar species such as Spectacled Bulbul *P. erythroptalmos* or Cream-vented Bulbul *P. simplex*, were noted.

SCALY-BREASTED BULBUL *Pycnonotus squamatus*

Usual upper elevational limit: 1,000 m (Robson 2000). One individual was seen well, perched in a tree, along the closed road from 'The Gap' to Bukit Fraser at 1,400 m.

YELLOW-VENTED FLOWERPECKER *Dicaeum chrysorrheum*

Usual upper elevational limit: 1,100 m (Robson 2000). One individual was seen well at less than 10 m range in a single emergent tree along the closed road from 'The Gap' to Bukit Fraser at 1,400 m.

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During the course of my visit, six other species were seen above their upper elevational limit as quoted in Robson (2000): Hill Blue Flycatcher *Cyornis banyumas* seen at 1,500 m (usual upper limit 1,220 m); Rufous-browed Flycatcher *Ficedula solitarius* seen at 1,500 m (usual upper limit 1,400 m); Verditer Flycatcher *Eumyias thalassina* seen at 1,450 m (usual upper limit 1,220 m); Stripe-throated Bulbul *Pycnonotus finlaysoni* seen at 1,500 m (usual upper limit 1,300 m); Dark-necked Tailorbird *Orthotomus atrogularis* seen at 1,350 m (usual upper limit 1,200 m); White-bellied Yuhina *Yuhina zantholeuca* seen at 1,400 m (usual upper limit 1,220 m). However, these species are apparently regularly recorded around Bukit Fraser (K. S. Durai verbally 2003).

This unusual incident of a community-wide elevational displacement on a single day could possibly be related to global climate change, although more data will be needed to establish whether this is the case. I hope that this paper will alert field researchers to this phenomenon, so that vital data can be collected for future analysis.

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REFERENCE

Robson, C. (2000) *A field guide to the birds of South-East Asia*. London: New Holland Publishers.

Abundance and seasonality of Indian Pond Herons *Ardeola grayii* with red legs in Uttar Pradesh, India

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The Indian Pond Heron *Ardeola grayii* is found commonly throughout the Indian subcontinent (Grimmett *et al.* 1998). The legs (tarsi and feet) of this species are usually dull green, but during the breeding season (March–September) they turn bright yellow. However, they 'sometimes show a salmon-pink flush early in the season' (Hancock and Kushlan 1984). Occasional reports of pink or red legs during the breeding season have been noted in southern and western India (Abdulali and Alexander 1952, Hancock and Kushlan 1984, Parasharya and Naik 1987, Wesley 1993, 1996, Relton 1996).

METHODS

I carried out observations of Indian Pond Herons in Etawah and Mainpuri districts, Uttar Pradesh, India between January 2000 and June 2002. The species was resident in the study area and common throughout the year, although the exact breeding season was not determined. Opportunistic observations were made of birds foraging in crop fields or natural wetlands from road transects totalling c.250 km 1–7 times a week (mean: three) during a study of the Sarus Crane *Grus antigone*. There was equal effort in all months and in all three years during this study. Hence, although the number of pond herons with yellow legs was not also recorded



Plate 1. Indian Pond Heron *Ardeola grayii* showing red legs, Etawah district, Uttar Pradesh, India.

(and thus it was not possible to quantify the proportion of individuals with red legs), seasonal trends in numbers of pond herons with red legs noted in each month can be taken to indicate seasonal trends in proportions. In addition, a specific count of all pond herons was made from a road transect totalling 85 km on 16 April 2001 and on 25 May 2002. Birds within 50 m on both sides of the road were counted while riding a motorcycle at 20–30 km/h.

RESULTS

Table 1 shows the number of individual Indian Pond Herons with red legs noted opportunistically each month between March and July each year. No individuals with red legs were sighted during other months. During the specific road transect, 28 of 1,075 pond herons (2.6%) had red legs in April 2001, and 19 of 904 pond herons (2.1%) had red legs in May 2002.

Table 1. Number of Indian Pond Herons with red legs noted during opportunistic observations in Etawah and Mainpuri districts, Uttar Pradesh.

Month	No. individuals		
	2000	2001	2002
March	8	0	0
April	14	35	6
May	6	16	26
June	1	5	19
July	0	0	2
Total	29	56	53

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DISCUSSION

I noted significant numbers of Indian Pond Herons with red legs each year during March–July, and particularly in April–May. In systematic counts, these birds formed about 2% of all individuals. As I did not distinguish between breeding adults and non-breeding sub-adults with yellow legs during the systematic counts, the proportion of breeding birds with red legs is likely to be higher than the 2% reported here. The phenomenon is clearly not quite as rare as was suspected previously, although the proportion of individuals involved is very small. The function of the coloration remains unknown.

Hancock and Kushlan (1984) suggest that the legs turn red before the individual acquires full breeding plumage. However, I found that even individuals that had acquired complete breeding plumage had red legs, and I suspect that the colour deepens as the birds moult into breeding plumage, but this requires confirmation. Previous authors have referred to the colour as 'salmon-pink' (Hancock and Kushlan 1984) or 'red' (Abdulali and Alexander 1952). I use the latter term here, but the commonest colour was better described as orange-red (Plate 1). The colour probably varies between individuals and over time.

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REFERENCES

- Abdulali, H. and Alexander, H. G. (1952) Ardeidae with red legs. *Ibis* 94: 363.
- Grimmett, R., Inskipp, C. and Inskipp, T. (1998) *Birds of the Indian subcontinent*. Delhi: Oxford University Press.
- Hancock, J. and Kushlan, J. A. (1984) *The herons handbook*. London: Croom Helm.
- Parasharya, B. M. and Naik, R. M. (1987) Changes in the soft part colouration of the Indian Reef Heron, *Egretta gularis* (Bosc.) related to age and breeding status. *J. Bombay Nat. Hist. Soc.* 84: 1–6.
- Relton, A. (1996) Is red-legged pond heron a female? *Newsletter for Birdwatchers* 36(3): 59.
- Wesley, H. D. (1993) Genetics of the red tarsi and feet in the Pond Heron. *Newsletter for Birdwatchers* 33(4): 73.
- Wesley, H. D. (1996) More red-legged Pond Herons. *Newsletter for Birdwatchers* 36(1): 5–6.